

AMENDMENTS TO THE CLAIMS:

Kindly amend claims 1-5, 7-9 and 11, as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application:

Claim 1 (currently amended): A method of manufacturing a semiconductor device comprising the steps of:

forming a first insulating film on a semiconductor substrate;

forming a first trench ~~portion~~ in said first insulating film;

forming a second insulating film over the entire surface of said semiconductor substrate so as to fill up said first trench ~~portion~~;

forming a plurality of second trenches ~~for wiring~~ in an area excluding a region immediately above said first trench portion by removing said second insulating film selectively;

forming a metal film so as to fill in said second trenches ~~for wiring~~;

forming a plurality of wirings by removing said metal film lying outside said second trenches ~~for wiring~~;

forming a third trench ~~to form an air gap~~ by removing said second insulating film lying above said first trench ~~portion~~, said trench ~~to form an air gap being composed of a removed portion of~~ and said second insulating film ~~and lying in said trench portion~~; and

forming a third insulating film over the entire surface of said semiconductor substrate so as to form a cavity within said third trench to form an air gap.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 2 (currently amended): The method according to ~~claim 1~~ claim 1, wherein said step of forming a third trench to form an air gap comprises removing said second insulating film throughout the whole region between said ~~adjacent~~ wirings.

Claim 3 (currently amended): The method according to claim 1 ~~[[;]]~~:

wherein said step of forming a first trench ~~portion~~ comprises forming a ~~plurality of~~ via hole~~[[s]]~~ together with said first trench ~~portion~~, in a region of said first insulating film other than the region where said first trench ~~portion~~ is formed,

said step of forming a plurality of second trenches ~~for wiring~~ comprises connecting said second trenches ~~for wiring~~ to said via holes, and

said step of forming a metal film comprises filling it in said via holes ~~along~~ together with said second trenches ~~for wiring~~.

Claim 4 (currently amended): The method according to claim 1, wherein said step of forming a third trench ~~to form an air gap~~ comprises removing said second insulating film along the region where said first trench ~~portion~~ is formed.

Claim 5 (currently amended): The method according to claim 1, wherein said step of forming a third trench ~~to form an air gap~~ comprises removing said second insulating film, by using an etchant capable of removing said insulating film selectively with respect to said metal film without using a mask.

Claim 6 (original): The method according to claim 1, wherein said third insulating film is made of a low-dielectric-constant material.

Claim 7 (currently amended): A method of manufacturing a semiconductor device comprising the steps of:

forming an insulating film on a semiconductor substrate;

forming a plurality of first trenches for wirings by removing said insulating film selectively;

forming a metal film so as to fill in said first trenches for wirings;

forming a plurality of wirings by removing said metal film lying outside said first trenches for wirings; and

forming a second trench by removing said insulating film throughout the whole region between said ~~adjacent~~ wirings.

Claim 8 (currently amended): The method according to claim 7, further comprising a step of forming an interlayer insulating film over the entire surface of said semiconductor substrate after step of forming [[a]] said second trench.

Claim 9 (currently amended): The method according to claim 8, wherein said step of forming an interlayer insulating film comprises forming a cavity within said second trench.

Claim 10 (original): The method according to claim 8, wherein said interlayer insulating film is made of a low-dielectric-constant material.

Claim 11 (currently amended): The method according to claim 7, wherein said step of forming a second trench comprises removing said insulating film by using an etchant capable of removing said insulating film selectively with respect to said metal film without using a mask.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567